# **Historic, Archive Document**

Do not assume content reflects current scientific knowledge, policies, or practices.



MAY 1954

# MARKETING ACTIVITIES





#### IN THIS ISSUE

NAMO CONFERENCE
A report on the annual meeting of the Atlantic States Division of the National Association of Marketing Officials held at the U.S. Depart- ment of Agriculture, late in April.
LONGER SHELF LIFE FOR PREPACKAGED SLAW  By Dr. Harold T. Cook
Simple dip treatments which may mean the difference between sale and loss of unrefrigerated, prepackaged cole slaw are described by Dr. Cook, who is with the Biological Sciences Branch of AMS.
IMPROVED INSTRUCTION METHODS BOOST EMPLOYEE PERFORMANCE By Martin Kriesberg
Employee participation in changes to new handling methods in retail food stores pays off in better performance, according to a study explained by a staff member of the Transportation and Facilities Branch, AMS.
FEDERAL-STATE RESPONSIBILITIES IN MARKETING SERVICES Page 18
A digest of the remarks of Charles Figy, Assistant to the Secretary of Agriculture, at the Atlantic States Division, NAMO, meeting.

#### MARKETING ACTIVITIES

Vol. 17 No. 4

Address all inquiries to:
J. Grant Lyons, Editor,
MARKETING ACTIVITIES,
U. S. Department of
Agriculture,
Washington 25, D. C.

Material in this publication may be reprinted without special permission.

A monthly publication of the United States Department of Agriculture, Washington, D. C. The printing of this publication has been approved by the Director of the Bureau of the Budget (March 24, 1953). Copies may be obtained from the Superintendent of Documents, Government Printing Office, Washington 25, D. C., at a subscription price of \$1.75 a year (domestic), \$2.25 a year (foreign), payable by check or money order. Single copies are 15 cents each.

# NAMO Conference

Meeting on a theme of "More Trade - Less Aid," the Atlantic States Division of the National Association of Marketing Officials held its 1954 annual conference in Washington on April 26 and 27.

Speakers from State marketing agencies, the U. S. Department of Agriculture, and private industry discussed at length their relationships in the fields of marketing, service and research work; developments in grades and packaging, poultry marketing, market news, "matched-fund" projects under the Agricultural Marketing Act of 1946, and trends in marketing facilities and equipment.

#### National\_Officers Present

The conference was marked by the appearance of all the national officers of NAMO: President, W. L. Cathey, Chief of Markets and Marketing, Georgia; First Vice-President, W. L. Witte, Chief Markets Division, Wisconsin Department of Agriculture; Second Vice-President, Wesley Windisch, Chief, Bureau of Markets, Ohio; and Secretary-Treasurer, J. H. Meek, Director, Division of Markets, Virginia Department of Agriculture. In all, 21 States were represented at the conference.

A highlight of the meeting was the statement of Charles Figy, Assistant to the Secretary of Agriculture, that it is the policy of the Department to turn back to the States some of the marketing work now done by the Department, "where this is feasible." Pointing out that "too many things have been channeled to Washington that could have been performed by the States," Mr. Figy stressed that "this poses a problem and places a responsibility on all of us to attempt to determine the dividing line between Federal and State responsibility."

# States To Be Consulted

Later, during the discussion of his remarks, Mr. Figy indicated that the Department is considering a plan whereby committees from State agricultural agencies would be asked to come in and review proposals concerning the division of functions between the Department and the State organizations. (Excerpts from Mr. Figy's statement appear on page 18.)

Oris V. Wells, Administrator, Agricultural Marketing Service, outlined the recent reorganization of the Department, emphasizing the set-up of AMS along functional rather than commodity lines and explaining its organization. Calling attention to the scope of the new marketing agency, the physical task of setting it up, and its budget difficulties, he said that this work was now completed and the time had come to take a look at the major problems facing AMS.

"We are going to carry on each and every one of our services as best we can," Administrator Wells stated. "To do a first class marketing job in the United States, we must have the interest and the cooperation of the farmers, processors, and the marketing trade and those of us in the State and Federal Governments."

In extending "greetings" to the conference, Mr. Meek urged "teamwork" by Federal and State representatives of marketing agencies - through a policy of "economy and efficiency." He listed "fundamental principles" governing his thinking on marketing problems and suggested that the marketing agencies get together to simplify standards for food products so that the housewife can understand them better and purchase by them. He favored "official inspection at economical fees to make it possible for consumers to purchase with confidence," stressing that "ho marketing program is efficient if value cannot be established and value cannot be established without knowing the quality."

Mr. Meek opposed the use of funds, from inspection and grading fees collected by State agencies, for administrative expenses "above the branch level" within USDA. Pointing out that many States use their own tax money to pay the heads of State marketing agencies and supervisors of commodity activities, he said that the fees are "chicken feed" compared with expenditures for some other programs of USDA. He also held that "too few of our programs under the Research and Marketing Act are in the active field," citing as examples the "delay in doing anything about retail market news and standardizing our standards."

Mr. Meek, in conclusion, suggested that more rapid progress could be made with these problems and in increasing the "emphasis on marketing."

# Inspection and Grading Funds

In his remarks, towards the end of the two day meeting, Mr. Wells explained that the Budget Bureau, while increasing funds for crop estimate and marketing research work, made a series of reductions in inspection and grading funds, with the recommendation that fees be increased to provide the same amount of service. He added that the House Agricultural Appropriations Subcommittee put back a \$220,000 Budget Bureau cut in funds for inspection and grading of fruits and vegetables, with a note to the effect that the financing of grading and inspection work was a matter which the House Committee on Agriculture might want to consider.

The most enthusiastically received address of the meeting was made by Harold E. Fellow, President, National Association of Radio and Television Broadcasters; a stirring call for faith, not only in the present economic and spiritual security of America, but in the promise of a still greater prosperity for the future. Outlining the gains the country has made since 1940, the speaker said that "what we now consider dramatic and almost unbelievable changes. . . will be looked upon two decades from now as merely mild reforms." He gave as his basis for the future outlook the great changes in population, higher standards of living, increased leisure time, the need for construction and reconstruction of outmoded dwelling units and highways, and told the conferees that "it is our task. . . to

inform ourselves as thoroughly as possible of the nature of these changes and the demands they will make upon us."

The conference was opened by the Chairman of the Atlantic States NAMO group, F.W. Risher, Assistant Commissioner, Florida State Marketing Bureau.

#### Crop Estimate Research Planned

Following Mr. Meek's "greetings" to the group, S. R. "Bert" Newell, Director, Agricultural Estimates Division, AMS, discussed the past 12 months in Federal marketing work. He explained that the new AMS set-up brings all of the Department's marketing work together in one organization, which undoubtedly will facilitate the carrying out of marketing programs both Federal and State. He called attention to the fact that federal funds for "matched-fund" work under AMS are now a separate appropriation item and that the House had increased this appropriation by \$327,600 to a total of \$900,000 for the fiscal year 1955. Mr. Newell noted that this year, for the first time, funds are available for research and development in crop reporting techniques and a fairly comprehensive program is underway for study of some problems in this field. He also pointed out that in many areas crop and livestock estimates are being adapted to meet immediate marketing needs by providing weekly reports; a trend which seems likely to increase.

## Who Benefits From Inspection and Grading?

Mr. Figy followed Mr. Newell on the program and in the discussion period following Mr. Figy's remarks, several members expressed interest in "where grading and inspection becomes public responsibility?" The majority expressed the opinion that the work mainly benefits consumers.

Mr. Figy admitted that he did not know where it is, but insisted that "there is a levelat which the service becomes a public responsibility and the tax dollar should take care of the service above that level." Chairman Risher pointed out that inspection is doing both the farmer and consumer a good service, but where the line is drawn between them he did not know. He said he was glad that Mr. Figy had indicated that the State Departments and USDA "probably could sit down and figure this out."

# Prepackaging and Consumer Grades

Opening a panel discussion of "Retail Grades and Retail Packages," Benjamin Storrs, Chief, Division of Markets, Connecticut, went into the broader phases of retailing and described this stage of marketing as the "weakest link" in our distribution system. Since the highest cost occurs at the retail level, he said, marketing agencies should be more concerned about the retail system and in studying and planning how to improve it. The speaker urged that marketing, crop, and grading information be interpreted and passed along to "these folks that are on the end of the distribution line." He added that there are research projects and programs which could be adapted to give retailers better methods and knowledge of handling perishables.

May 1954 5

Raymond L. Spangler, Fruit and Vegetable Division, AMS, disclosed that the Department is now deciding whether it will contine to issue separate consumer standards or adapt its wholesale standards to prepackaged products. He said that there is a great deal of resistance on the part of country shippers to change from wholesale to consumer grades, although this same resistance is not noticeable on the part of terminal market prepackagers. Mr. Spangler explained that because carrot prepackagers, particularly in California, have found it hard to meet the department's consumer grade "A" for that product, a "B" grade is being promulgated. He also said that because of its cost, from \$400 to \$500 a month, continuous inspection has not taken very well in the prepackaging trade, and at present there are only two such operations.

Asked how the prepackaging patternis being formed; whether the chain stores are doing most of their own prepackaging or having it done at shipping points, Mr. Spangler said most of the chains are interested in having another fellow do the job, particularly on root crops. He said that the trend is toward shipping point prepackaging of all semi-perishables such as root crops and added that apples also lend themselves better to prepackaging at shipping point.

When the use of consumer standards for potatoes was questioned in light of existing U. S. (wholesale) standards, Mr. Spangler pointed out that potatoes are packed extensively in consumer packages on the basis of wholesale grades which are not satisfactory to consumers because the minimum size allowance is too small and the tolerances are too great.

### Consumer-Size Packages

George H. Chick, Chief, Division of Markets, Maine, made a strong case for washed potatoes, pointing out that tests in his state showed that washed potatoes outsold unwashed 3 to 1 when the respective prices were 39 cents for 15 pounds as against 27 cents a peck. He said that although the consumer is willing to pay a higher price for washed potatoes there is a shipper resistance to washing because their buyers will not pay a premium for the product. Asked what is the most popular package for Maine potatoes, Mr. Chick replied: "15-pounds at present, but 10-and-5 pound packages are becoming more popular, with a definite trend toward the smaller containers." He noted, however, that most potatoes are shipped from Maine in-50-pound packages for the restaurant and hotel trade.

# Prepackaging Being Watched

Kenneth R. Slamp, Director, Bureau of Markets, Pennsylvania, cited the tremendous increase that has taken place in fruit and vegetable prepackaging, noted that there was still room for expansion, but warned that some of the containers can be used to cover up defects and "junk." He explained the situation in Pennsylvania where clear pliofilm packages are not considered closed containers, but those with fancy designs which hide the product are. Mr. Slamp said that one of the difficulties discovered in "in-store" prepackaging is that the grade of the product is not properly marked on the package. He also drew attention to the discovery in his state that potatoes exposed to fluorescent lights will burn and turn green.

John A. Winfield, Director, Division of Markets, North Carolina, explained that prepackaging there, so far, has been mostly on an experimental basis, but cited the packaging of strawberries in pints rather than quarts as an indication that "to the average consumer quality and not volume is the main consideration." He also said that his state is interested in small packages for peaches and that arrangements have been made to wash potatoes moving out of North Carolina.

In a further discussion of the trend toward smaller-sized consumer packages for potatoes, Fay Gaylord, Assistant Chief in Horticulture, Purdue University, added that "this is definitely so" in the midwest where almost all potatoes are sold prepackaged.

#### Poultry Marketing Progress

At the afternoon session of the opening day, Fred Buzen, Head, Retail Merchandising Division, Poultry and Egg National Board, Chicago, explained the promotion work for poultry products carried out by his organization, stressing the "merchandising schools" which have been sponsored by USDA under the AMAct. Probably the high point of his appearance, however, was his skillful demonstration of the technique for cutting up a chicken that is taught in the PENB classes.

In the following discussion, Mr. Buzen said that while the USDA contract for the poultry merchandising schools ends June 1, 1954, PENB will not completely drop the program.

In a panel on "What's New in Poultry Marketing," Hermon Miller, Deputy Director, Poultry Division, AMS, described the tremendous increase in consumption of poultry products over the past 20 years, called attention to changes which have taken place in production areas and illustrated the new pattern of marketing poultry in frozen form with exhibits of so-called complete chicken and turkey dinners. He said that one field in which intensive work is needed is that of poultry processing where it is hard to keep up with new equipment and new techniques.

# Compulsory Grading Favored

H. V. Shute, Director, Division of Markets, Vermont, making his first appearance at an NAMO meeting, said that there is a great deal of interest in poultry in his state as dairymen are seeking to diversify because of present milk prices. He said that he favored compulsory grading laws for eggs as well as other farm products. "You can educate people with a certain degree of success," he said, "but with compulsory grading laws, and by showing that it is good business, you lose the stigma of a policeman and become an adviser."

Spencer Duncar, Assistant Director, Bureau of Markets, New York, said that the highlight in poultry work in his state has been in Long Island ducks where 56 of the 63 farms producing them moved their ducks through 32 approved processing plants last year. He said that a dressed poultry quality control program had been launched in the state and added that it "looks like 'New York dressed' poultry is on its way out in New York, too."

May 1954 7

In the discussion period considerable time was devoted to the terminology of chicken parts as they are cut out under the PENB method. Dewey Termohlen, Director, Poultry Division, AMS, said that while the department has general definitions for poultry parts there is nothing official. He added that a series of meetings are to be held at which it is hoped agreement can be reached with the industry on definitions, "since this is a voluntary program and we can't force people to do things."

Costs of Federal poultry inspection, particularly for small processors, and the use of lay inspectors, under the supervision of veterinarians, for this work, drew divergent views from the state marketing officials present. Comments ranged from Mr. Meek's statement that supervised lay inspection would cost only one-half the Federal charges, "which now limit poultry inspection to a few large plants," to Mr. Shute's declaration that without qualified inspectors the work is not done carefully and those interested in a quality product want stronger inspection.

Mr. Termohlen declared that USDA wants to cooperate with the state marketing agencies to develop a sound economic program for poultry grading. "We know we have a problem," he said. "We have not stopped working on it. We are willing to work with any group on it."

#### Market News Service

A panel on the Market News Service was held under the leadership of C. D. Schoolcraft, Chief, Market News Branch, Fruit and Vegetable Division, AMS, who told of a trial working conference of State and Federal market news people to be held in Atlanta late in May to better plan and coordinate market news work in the Southeast. He said this will be watched closely and may be carried to other areas if successful. Mr. Schoolcraft introduced Frank Blood, Assistant to the Deputy Administrator, AMS, who discussed the financial aspects of market news service. Mr. Blood said that at present 16 out of 41 states cooperating in the market news service are carrying their "fair share" of the costs. With respect to the other 25 states, he explained that "this is a long time program and we do not expect to achieve it overnight." He pointed out that the Department's appropriation for the work is based on the states bearing their fair share, and that states which had not yet been contacted would be soon. He praised the fine spirit of cooperation which the states have shown in discussions of this problem.

## Expanding Market Outlets

Kenneth J. McCallister, Market Organization and Costs Branch, AMS, discussed how changes in marketing require changes in market news. He pointed out how greater use of the motor truck and telephone, increased processing at country points, and growth of direct buying have required greater emphasis on market news reporting in the producing areas. "We should not overlook the possibilities of market news as an instrument for expanding our market outlets, particularly for perishable products," Mr. McCallister said. He then went on to demonstrate how an expanded and improved market news service could change the shape of the demand curve for farm products and thus create larger markets, since buyers would be better informed and marketing margins kept more nearly in line with costs.

Lance Hooks, Information Division, AMS, traced the growth of newspaper and radio use of market news and the entrance of television into the field. He said that the Information Division provides overall advisory service, assisting in setting up reports and, in the field, prepares combined reports at the various market centers.

Warren Oley, Director, Division of Markets, New Jersey, pointed out that although some of the States "may not be carrying too much of the cost of the market news service," it should be realized that the states carry on supplemental market news services for which they bear the entire cost. He cited several of these.

Henry F. Briggs, Deputy Administrator, Division of Markets, Rhode Island, discussed several reports issued in his state and praised the overall market news service.

Mr. Cathey, described the market news service in Georgia "where the best thing is the general broadcasting of market news by radio."

Clement A. Lyon, Director, Division of Markets and Standards, New Hampshire, said that while there is no wire service in his state there is a weekly market news report which has proved valuable.

# Agricultural Transportation Threatened

At the opening session the second day, Mr. Winfield warned the conferees that regulated carriers are driving hard to regulate all transportation in the country, particularly the hauling of perishable farm products. He called attention to pending legislation in this respect which he held would harm farm marketing. Legislation to prohibit return-trip leasing of trucks, to allow carriers to put rate increases into effect pending Interstate Commerce Commission approval (the so-called "time lag bill"), and to eliminate the present exemption of agricultural commodities from certain regulatory powers of the ICC were particularly singled out for criticism by the speaker.

"Unless there are ways of cutting transportation costs as well as other marketing costs, how can consumersget any benefits that will amount to anything, "Mr. Winfield asked. . . "An examination of the division of the costs of farm commodities will show that the regulated carriers are taking a terrific bite. . . out of the consumer, and it has hurt traffic, and increased costs and waste over the past 10 years."

Mr. Meek, as the Secretary of NAMO, said that he would inform the national group of this situation in its quarterly bulletin.

# AMA Cooperative Marketing Service Work

Turning to the panel discussion for which he was chairman, "matched-fund" projects, Mr. Winfield held that this program could be strengthened through its closer examination by the state agencies and if USDA would work closer with State Departments of Agriculture.

At this point an announcement was made that there will be a National Marketing Workshop at Cornell University from August 26 through September 3, while the NAMO national meeting will be held October 18 - 20 at Purdue University.

Leighton G. Foster, Chief, State Marketing Services Staff, AMS, outlined the 3 broad areas of work now being carried on in "matched-fund" marketing service programs - basic market information, quality maintenance, and technical assistance to improve marketing. He stressed that every project approved under the program had originated in the States.

#### Events Affecting AMA Work

Several significant changes and events which took place during the past year were noted by Mr. Foster. These were: The reorganization of USDA; the increase in the Federal appropriation for "matched-fund" programs voted by the House and the fact that these funds are now a separate appropriation item; a change in the policy of the Agricultural Research Policy Committee to include representatives of State Departments of Agriculture on Agricultural Research and Marketing Act advisory committees; and the success of the Louisville, Ky., National Marketing Service Workshop last fall.

#### More Responsibilities For States

Pointing out that these changes put greater responsibilities on the State agricultural departments, Mr. Foster said that if the "matched-fund" program is to continue to receive favorable consideration by Congress, the States should: Evaluate work now being carried on and continue only those programs showing tangible results; be more specific in progress reports, spelling out the problem, what was done, and dollars and cents accomplishments; and outline specifically in estimates for the coming fiscal year the nature of programs expected to be undertaken. He stressed that it is from the progress reports that material is prepared for the Department to use before Congress.

"Most States still lack balance in the marketing service programs they are carrying out," Mr. Foster explained. "For the most part they are hitting only one or, possibly, two phases and not the others. . One of the most important, but probably the most neglected fields is the one of technical assistance to improve marketing. More states should give consideration to this area in the future."

# State Reports on Protects

- Mr. Gaylord described "matched-fund" service work that is being done in Indiana, emphasizing a project of technical assistance to canneries there based on the results of 4 years of research with that industry.
- J. E. Youngblood, Director, South Carolina State Agricultural Marketing Commission, outlined work being done there on hydro-cooling of peaches, grain storage facilities, a study of shipping point markets and the development of better poultry products. He stressed that reports on

accomplishments under the "matched fund" work are just as important for presentation to State Legislatures as they are for Congress.

Walter S. Mason, Market Information Analyst, New York Department of Agriculture and Markets, described market news reports set up under "matched fund" projects for apples, maple syrup, Christmas trees and livestock auctions. He also revealed that work is being done on the development of a 1/2-bushel box for tomatoes to furnish more protection for the product.

A. G. Moffett, Supervisor, Market Expansion Section, Division of Markets, Virginia, said that his state is narrowing its market service program, but intensifying it at the same time and for the next two years will give major emphasis to grain marketing, beef cattle, sweet potatoes, apples, wholesale markets, and market information. He enthusiastically described a retail market news program that has been instituted in Virginia, recommended such a service as a "worth while venture" for other states, and said that the response the Virginia service has received "has more than compensated our original investment in the work."

Opening the concluding session of the conference, Miles Nelson, Chief, Bureau of Marketing and Enforcement, Michigan Department of Agriculture, expressed the opinion that marketing service work in the States could be improved through "a little more coordination between education, research, and marketing service." He said that this year his state had \$609,000 for marketing work.

#### Reducing Handling Costs

W. C. Crow, Chief, Transportation and Facilities Branch, AMS, in a discussion of "Present Trends in Marketing Facilities and Equipment," declared that there is a need for increased activity on the part of the state marketing agencies to halt increased costs of marketing by improveing marketing facilities and adopting handling equipment and methods which will reduce handling costs. Through the use of slides, he illustrated improvements in a number of large terminal markets, improved handling methods and equipment, and labor saving devices developed through USDA research. A color film made for the Department by the Washington State Apple Commission showing improved handling methods and equipment - from the orchard through the storage house - also was shown.

"Experience gained to date shows that significant reductions in the cost of handling products through the marketing system are possible through improving marketing facilities and improving handling methods," Mr. Crow said. "Research results are pointing out the kind of improvements that are needed, but the real need is for State Departments of Agriculture to work with the marketing agencies in getting these results applied."

# Officers Elected

In an election of officers Louis Webster, Director, Division of Markets, Massachusetts Department of Agriculture, moved from Secretary to Chairman of the Atlantic States NAMO group, succeeding Mr. Risher. Mr. Youngblood of South Carolina was elected Secretary.

# Longer Shelf Life For Prepackaged Slaw

By Dr. Harold T. Cook

Simple, economical methods of treating prepackaged cole slaw, which extend its keeping qualities even where refrigeration facilities are lacking, have been tested by U. S. Department of Agriculture research technicians with fairly favorable results. While the processes are by no means comparable to continuous refrigeration for maintaining quality of the product they do hold some promise for use where that method of preservation is not available.

The two methods of treatment involve the use of dips made from common household necessities - small amounts of either ordinary table salt or bicarbonate of soda - in plain water. Emphasizing again that the use of the dips definitely is not proposed as a substitute for refrigeration, they will, however, help prolong the shelf-life of prepackaged cole slaw an additional day at temperatures between 70 and 80 degress Fahrenheit.

## Importance of a Little Longer Shelf-life

While this short period of time may not seem important to the keeping quality of a fresh food product, it is very significant to the retailer; highly-perishable, prepackaged cole slaw loses its attractiveness in just a day's time unless it is kept under refrigeration. An added day of shelf-life could mean the difference between sale and outright loss of the product in retail stores where cooling facilities are not available. With the advent of summer, the findings on the effect of these treatments for slaw should be of interest to prepackagers of the product since their sales usually drop considerably during the warm months unless the product can be handled under refrigeration from its preparation until used by the consumer. The salt water dip is also recommended for trial by prepackagers as an adjunct to refrigeration.

Effects of temperature, ventilation and chemical dips on prepackaged cole slaw were studied by Jacob Kaufman and J. M. Lutz, with the cooperation of a buying agency of a large chain store organization and a packaging company. They tried a number of chemicals but found that at both 70 and 80 degree temperatures a 1-minute dip in a 1 to 1.5 percent concentration of ordinary table salt gave the slaw longer shelf-life than any other chemical tried. A 2 percent concentration of salt was noticeable in the taste of cole slaw, and a mixture of salt and citric acid, useful in retarding discoloration for some fruits, had no value in use on cole slaw.

In tests of temperature effect on the shelf-life of non-treated slaw

in perforated and non-perforated cellophane bags, this group found that the slaw remained fresh for 4 days when held at 32 or 40 degrees Fahrenheit and was salable when kept an additional day, after this refrigeration period, at 70 degrees. At 50 degrees the slaw kept 2 to 3 days. That is, it could be kept 2 days at 50 degrees and an additional day at 70 degrees. At 70 degrees, slaw in most non-perforated packages held up 1 or 2 days, but that in perforated packages remained salable only 1 day. However, some slaw in non-perforated packages had off-odors and off-flavor after only 1 day, due to insufficient gas exchange through the packages. At 80 degrees, the non-treated cole slaw lasted less than 1 day.

### Results of Other Study

The other researchers, W. L. Smith, Jr., and R. E. Hardenburg, tested 95 chemical solutions for their effectin retarding discoloration of cole slaw and found that only 3 - one of which is prohibited by the Food and Drug Administration - consistently reduced discoloration. Their tests consisted of dipping freshly cut slaw in chemical solutions for 20 to 60 seconds and storing it in ventilated cellophane bags for 3 days at 70 degrees F. Slaw dipped only in water was barely salable for 1 day, unsalable in 2 days because of discoloration, and often decayed in 2 to 3 days.

Slaw treated with .1 percent streptomycin sulfate was salable for 3 days, but the use of this or other antibiotics on fresh produce is prohibited by the Food and Drug Administration. A 1 percent solution of bicarbonate of soda (NaHCO3) kept slaw salable for 2 days at 70 degrees temperature and a 1 percent solution of table salt (NaCl) kept it salable for more than 1 day.

Both of the research groups mentioned above are with the Quality Maintenance and Improvement Section of the Biological Sciences Branch, Marketing Research Division, AMS.

PRE-PEELED POTATO STANDARDS ISSUED

In response to requests from large users, standards for grades of peeled white potatoes have been issued by USDA. Pre-peeled potato production has jumped substantially in recent years to meet the requirements of restaurants, hotels and other large users. ("Pre-Peeled Potatoes Present Possibilities," MARKETING ACTIVITIES, September 1953.)

The USDA standards cover Whole, Sliced, Diced, French Style or Shoestring, Cuts, Whole and Cut (not less than 50 percent whole potatoes), and Cut and Whole (less than 50 percent whole potatoes). Requirements as to uniformity of size are designed to contribute to uniformity in cooking and preparation. Evaluation of color and texture, before and after cooking, is provided for. Grades - US Grade A or US Fancy, US Grade B or US Extra Standard, and Substandard - are ascertained by considering in conjuction with other requirements the respective ratings for the factors of color, uniformity of size, defects and texture.

# Improved Instruction Methods Boost Employee Performance

By Martin Kriesberg

Emphasis on employee participation pays off when improvements or changes in grocery handling methods are introduced in retail food stores. Better performance on the part of grocery clerks shows up in a higher ratio of grocery sales to clerk hours, improved utilization of work time, and wider acceptance of the more efficient handling practices.

These findings, made in a recent supermarket study by research personnel of the U. S. Department of Agriculture, were part of a project to determine methods of employee instruction which would obtain better acceptance of improved grocery handling practices. Three methods of introducing the improved handling practices were tested in a controlled experiment among 15 supermarkets of a moderate-sized midwestern chain.

Highlights of the three instruction methods tested are: Method "A"-store managers were mailed memoranda and published material on grocery
handling to discuss and distribute to their grocery clerks. Method "B"-store managers were called to a special meeting on grocery handling by
their supervisor; they were shown a motion picture on the subject and received copies of the memoranda and published material to discuss and distribute to their clerks. Method "C"--store managers and their supervisor
were called to a special meeting on grocery handling, were shown the motion
picture, and received the published material on the subject. Grocery handling practices were discussed with the clerks in the stores and at a conference in the company's office. The clerks were shown the motion picture
and received copies of the memoranda (see sketch, next page). Preliminary findings on results achieved by each method of instruction follow:

## Savings In Number of Clerk Hours

Savings made possible with instruction which emphasized clerk participation in the program of work improvement was 515 grocery clerk hours per week for one group of 5 stores (a saving of over 15 percent). Instruction in which the supervisormet with store managers, but left clerk training to the store managers, was followed by savings of 280 hours per week for a second group of 5 stores (a 10 percent saving). The instruction method which relied on memoranda and printed materials being sent to store managers was accompanied by savings of about 130 hours per week for a third group of 5 stores (a 5 percent saving).

The ratio of grocery sales to grocery clerk hours was improved with all methods of instruction. In stores where clerk participation was em-

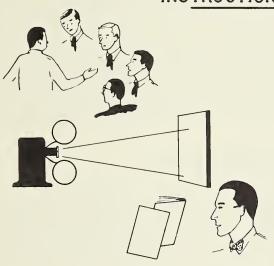
# Methods of Instruction Tested

# INSTRUCTION METHOD "A"

PRINTED MATERIAL TO MANAGERS
(8 CLERKS)\*



# INSTRUCTION METHOD "B"



SUPERVISOR MEETING WITH MANAGERS

+

MOTION PICTURE FOR MANAGERS

+

PRINTED MATERIAL TO MANAGERS
(& CLERKS)\*

INSTRUCTION METHOD "C"

CLERK DISCUSSIONS ON IMPROVED WORK METHODS

+

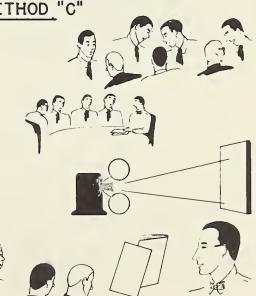
TRAINER MEETINGS WITH MANAGERS & CLERKS

+

MOTION PICTURE FOR MANAGERS & CLERKS

+

PRINTED MATERIAL TO MANAGERS & CLERKS



\* MANAGERS INSTRUCTED TO GIVE MATERIAL TO THEIR CLERKS

phasized (instruction method "C") the ratio rose from \$30.59 before instruction to \$35.14 afterward, a gain of \$4.55 per grocery clerk hour. In stores where managers met with their supervisor (instruction method "B") the gain was \$3.29 per grocery clerk hour, going from \$32.42 before instruction to \$35.71 afterward. Instruction method "A" (reliance on printed material) saw a gain of \$1.93 in grocery sales per grocery clerk hour, from \$31.22 to \$33.15 after instruction.

#### More Time Available for Other Store Work

Utilization of working time by grocery clerks also was improved by more effective methods of instruction. There was a reduction in nonproductive time and an increased proportion of time spent on other store work, such as leveling displays, putting up and taking down special displays and realigning and cleaning up shelf displays. In the period before instruction the proportion of time in "other store work" for both day and night clerks in the stores studied averaged 6.6 percent of the work day. After instruction among clerks participating in the program of work improvement (instruction method "C") average time of day and night clerks available for "other work" rose to 14.2 percent of the work day; among clerks under instruction method "B" it was 8.8 percent; and among clerks under instruction method "A," 7.4 percent of the work day was available for additional work.

#### Better Display Appearance

Better utilization of working time, particularly among clerks under instruction method "C," was reflected in improved appearance of display shelves. Appearance of display shelves was rated "excellent," "fair," and "poor" on periodic visits to the stores before and after instruction. Ratings of "excellent" for stores where instruction method "C" was used rose from 58 to 85 percent; for stores where instruction method "B" was tested ratings of "excellent" rose from 42 to 54 percent; the proportion of "excellent" ratings remained substantially the same after instruction as before for stores where method "A" had been used.

# More Willing Acceptance of New Methods

Acceptance of the improved grocery handling practices, recommended as part of the study, was increased by more effective methods of instruction. An average of the performance of 4 basic grocery handling operations gave the following results: Among full-time day and night clerks participating in the program to improve work methods (instruction method "C") there was an average increase of 26.8 percent in number of times recommended practices were followed; among clerks whose managers met with their supervisor (instruction method "B") correct performances were followed 8.5 percent more frequently; and among clerks whose managers received only written material (instruction method "A") performances as received only written material (instruction method "A") performances as received averaged 13.1 percent higher. (There was some transference of information among night crews of "A" stores and "C" stores which probably accounts for the apparently better results of clerks under instruction method "A" compared to those under instruction method "B.")

The study showed that while any one of the instruction methods commonly used in supermarket organizations and tested in the experiment helped improve grocery clerk performance, there was considerable difference in their effectiveness. Instruction which emphasized clerk participation in a program to improve work practices was much more effective than either of the other instruction methods tested. Performance of grocery clerks is little improved by informing store managers about better work methods; the clerks themselves need to be adequately instructed and motivated.

The overhead costs of a work improvement program, in developing better work practices and necessary training materials, are about the same for any method of instruction. Thus, the principal difference between the methods tested was the additional cost of getting grocery clerks to participate in the program under instruction method "C." In the study this was accomplished by periodic visits to the stores to discuss grocery handling practices with individual clerks and a conference on the subject with them in the company's offices.

The cost of conducting a program to improve work practices along the lines of instruction method "C" is estimated at \$6 per clerk more than by instruction method "B," and somewhat over that as compared to instruction method "A." Results of the study indicate that the most effective method of instruction more than pays for itself in reduced operating costs.

### Findings Applicable to All Food Stores

Although the study was conducted in one midwest supermarket organization, of moderate size, the findings are applicable for large or small organizations. Employee participation, for example, can be developed around all store personnel, departmental personnel in a group of stores, or personnel in one region of a supermarket chain.

While results of the study indicated the importance of securing active employees participation, it showed that an effective program of work improvement should also include: (1) Evidence of top management interest in improved work methods; (2) dramatization of the program to command the interest and enthusiasm of the clerks; and (3) continuity and follow-up.

Even though the findings in this study are related directly to supermarket operations, they also should hold true in other branches of the food distribution industry where operating efficiencies, which depend upon employee performance, are sought.

The study was conducted by the Marketing Research Division, of the Agricultural Marketing Service, under the Agricultural Marketing Act of 1946. It is the second in a series of studies on improving the productivity of retail food store employees through better techniques of personnel management. Labor is a principal item in operating costs of retail food stores, and high productivity depends on adequately trained and motivated clerks as well as on good equipment and sound operating methods. The study is part of a broad program of research on methods of increasing the efficiency of retailing operations in order to help hold down the costs of distributing food through this stage of the marketing system.

# Federal-State Responsibilities In Marketing Services

Excerpts from the remarks of Charles Figy, Assistant to the Secretary of Agriculture, before the Atlantic States Division of the National Association of Marketing Officials, follow:

". . .I think most of us agree that too many things have been channeled to Washington that could have been performed by the States. This poses a problem and places responsibility on all of us to attempt to determine the dividing line between Federal and State responsibility.

"When interstate business is involved or when the national economy is affected, the USDA should continue to perform the service and there should be no hesitancy in asking Congress for appropriations to carry it on. However, where there is no interstate commerce or when the benefits accrue entirely to the State, the Federal Government should gradually move out of the picture.

". . .if . . . our work is wholly for the benefit and protection of the public, then we are justified in asking the taxpayers to pay the cost. If the service is for the benefit of the industry then it should be self-supporting. However, if it results in a benefit to both the industry and the public, then the cost should be divided.

"Just recently you have received notice of increases in fees where the U. S. Department of Agriculture is involved. This is not a move on the part of USDA to shift responsibility, but is only an attempt to carry out an Act of Congress. . . which states in part that all Federal Agencies shall make any work, service, publication, report, etc., self-supporting to the fullest extent possible. With this action of Congress, it seems that the U. S. Department of Agriculture has no other alternative than to try and bring the fees in line with the cost of service. Reports to me by staff members show that in many cases fees have not been changed for many years while salaries and expenses have been going up.

"... (In) many types of cooperative agreements... financed by Federal and State appropriations ... percentage of participation is not uniform between States. This should be studied and adjustments made.

"Where fees are involved, there are different types of agreements. Some are Federal trust funds. . . Others are State accounts. . . the agency responsible for the account should have the most to say how it is carried on, using U. S. standards, especially (in) interstate shipments.

"... we need more research in marketing and consumer acceptance.
... much can be done by consumer education... (but) the old saying that the customer is always right must prevail..."

#### ABOUT MARKETING

The following addresses and publications, issued recently, may be obtained upon request. To order, check on this page the publications desired, detach and mail to the Agricultural Marketing Service, U. S. Department of Agriculture, Washington 25, D. C.

#### Addresses:

Summary of The General Livestock Situation and Outlook--The Present and Future, by Harold F. Breimyer before the West Virginia Livestock Association, April 13, 1954. 4 pp. (AMS) (Processed)

#### Publications:

Agricultural Economics Research. Vol. VI, No. 2. April 1954. 64 pp. (AMS) (Printed)

Farm Production, Disposition Cash Receipts and Gross Income, Chickens and Eggs 1952-1953, Chickens on Farms, January 1, 1953-1954, By States. April 1954. 9 pp. (AMS) (Processed)

Farm Production, Disposition, and Income, Meat Animals 1952-1953, By States. April 1954. 8 pp. (AMS) (Processed)

- U. S. Standards for Grades of Butter. April 1954. 5 pp. (AMS) (Processed)
- U. S. Standards for Shelled English Walnuts (Juglans Regia). Effective March 14, 1954. 5 pp. (AMS) (Processed)
- U. S. Standards for Grades of Cucumber Pickles. Revised date effective April 30, 1954. 24 pp. (AMS) (Processed)

Mealworms. Leaflet No. 195. Revised March 1954. 6 pp. (USDA) (Printed)

Studies on Sanitizing Methods for Use in Poultry Processing. March 1954. Circular No. 930. 30 pp. (USDA) (Printed)

The Cotton Plantation in Transition. January 1954. Bulletin 508 26 pp. (AMS in cooperation with Mississippi Agricultural Experiment Station) (Printed)

Trade in Western Livestock at Auctions. April 1954. Bulletin 740 California Agricultural Experiment Station. 67 pp. (USDA) (Printed)

Procedure For Insect Prevention and Control In Plants Processing Nonfat Dry Milk Solids. March 1954. 9 pp. (AMS) (Processed)

Carlot Unloads of Certain Fruits and Vegetables in 100 U.S. and 5 Canadian Cities, and Truck Unloads in 20 U.S. Cities. March 1954. 146 pp. (AMS) (Printed)

Special Rain Damage Report For Texas Vegetable Crops. April 16, 1954 1 p. (AMS) (Processed)

Feed Statistics Including Wheat, Rye, Rice. S.B. 139. January 1954 57 pp. (AMS) (Printed)

Potato Prices Monthly and Season Average Prices Received by Farmers, by States and United States 1909-52, Revised Estimates. S.B. 140. March 1954. 54 pp. (AMS) (Processed)

Technological Progress in the Meatpacking Industry 1919-47. M.R.R. No. 59. January 1954. 38 pp. (AMS) (Printed)

Effects of Intercorrelation Upon Multiple Correlation and Regression Measures. April 1954. 28 pp. (AMS) (Processed)

Comparative Economies of Different Types of Cottonseed Oil Mills and Their Effects on Oil Supplies, Prices, and Returns to Growers. February 1954. M.R.R. No. 54. 239 pp. (AMS) (Printed)

(Be certain you have given us your name and full address when ordering statements or publications. Check only the individual items you wish.)

NAME		
STREET		
CITY	ZONE	STATE